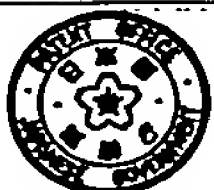


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(57) Abstract:

PROBLEM TO BE SOLVED: To make it possible to highly sensitively detect a sound even by a microminiaturized microphone by detecting a change in a resistance value obtained when a heat sensitive resistor formed on a diaphragm formed on a base board 1 by micromachining work is oscillated as an electric signal.

SOLUTION: A diaphragm 2 consisting of a thin film is formed on a base board 1 by micromachining work. A heat sensitive resistor consisting of a heat wire 3 having a large resistance temperature coefficient is formed on the surface of the diaphragm 2 and electrode parts 4 are formed on the end parts of the diaphragm 2. A constant current power supply 5 is connected to the heat wire 3 through the electrode part 4 to heat the wire 3 always at a fixed temperature. When the diaphragm 2 is oscillated by the input of a sound from the upper face, the wire 3 is cooled by air and its resistance value is changed. Thereby the terminal voltage of the wire 3 is changed and the change is detected by a voltage variation forming circuit 6, so that an output signal V_o corresponding to the input sound is obtained. Thus a microminiaturized microphone can be attained by micromachining work and a sound can be highly accurately detected.

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